

# WORKING P A P E R

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## The Use of Lottery Systems in School Admissions

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# Summary

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The Sutton Trust asked RAND Europe to carry out a short study of the use of lottery/ballot systems in admissions to schools, drawing on international evidence from both school and university sectors. The context of this research is the draft School Admissions Code, which will come into force in September 2008 in the United Kingdom. This admissions code allows schools to use lotteries to distribute places. Random allocation has received some attention as one method to promote a more even allocation of educational opportunities. The use of lottery schemes raises questions on how and why lotteries have been used, how lottery schemes have been designed, and what the outcomes associated with lottery schemes have been.

The Trust sought answers to several questions:

- Where have lottery/ballot systems been used for admissions to schools and universities?
- How do the random allocation schemes work?
- What have been the outcomes in terms of social mix of students and education attainment of students/pupils that have been selected in this way?
- What has been the response of parents and others to the approaches?
- How would any approach apply to schools in the UK?

Although the scope of this study did not permit answering these questions in full, the questions guided our investigation into lottery systems.

The study found that evaluations of existing lottery schemes offer little evidence linking lottery schemes to socially equitable outcomes. Rather, such evaluations mostly report on the impact of lottery schemes on student achievement. There are three main reasons for the lack of evidence on the relationship between lotteries and equity. Firstly, many lottery schemes do not have equity as an intended purpose. As a consequence, the impact on equity is not reported on. Secondly, very little research (none that we identified) has focused explicitly on this relationship. Thirdly, the design of studies that measure the impact of lottery schemes is complex and has important limitations.

The evidence gaps in evaluations of existing lottery schemes mean that this study cannot answer what the impact of the introduction of lottery schemes on equitable outcomes is likely to be and what types of lottery schemes might make school admission more socially equitable in the UK context. Further research is required to understand how lottery schemes operate in different contexts and what the associated impacts are.

One promising area of research in this area involves understanding how and why parents/pupils participate in lottery schemes. There is a developing body of work around parental choice. We know that how and why parents/pupils make choices affects outcomes in terms of participation, achievement, and potentially equity.<sup>1</sup> We also know that these choices are different depending on the specific context and the subgroups that one studies. Understanding choice therefore should be an integral element of any research agenda on the use of lottery schemes in the UK. Such research would inform the design, use and targeting of lottery schemes.

Table 1 gives an overview of the key observations and emergent recommendations.

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<sup>1</sup> Parental satisfaction with the use of lottery approaches is one aspect of the choice dynamic.

**Table 1: Key observations and emergent recommendations**

Key observations	Emergent policy recommendation for the UK
<p><b>Several countries use lottery schemes to ease oversubscription for different purposes</b></p>	<p><b>The design of the lottery systems should relate to specific purposes/admission problems</b></p>
<p><b>Summary</b></p> <p>The research shows that several countries have used lottery schemes. In all cases, lottery schemes have aimed to ease oversubscription in school and universities. In the Netherlands, the management of oversubscription in higher education is the sole aim of the lottery scheme. In the United States and New Zealand, lottery schemes were part of wider school choice, charter school, or voucher programmes. In Sweden and New Zealand the use lottery systems was part of reform aimed at increasing competition between schools and raising the standard of overall schooling. In some cases, lottery schemes had specific purposes aside from the management of oversubscription. In Chicago, the introduction of lottery schemes is related to specific desegregation court orders. In Milwaukee, the use of lotteries aimed to give better educational opportunities to pupils from low-income families. Although it seems obvious that the design of the lottery system should follow from a clear understanding of the rationale for instituting a lottery scheme in the first place, the examples that we have uncovered suggest that this is not necessarily the case.</p>	
<p><b>The majority of studies look only at student achievement rather than the impact of lottery schemes on access to educational opportunities</b></p>	<p><b>There is a need to measure outcomes associated with intended purposes</b></p>
<p><b>Summary</b></p> <p>We did not identify evaluations that systematically assessed the impact of lottery schemes on issues such as social selectivity and access to educational opportunities. Rather, studies have focused on student achievement. These studies have shown a differential impact of lottery schemes on student achievement. The results of evaluations are inconclusive. Some studies highlight a positive impact on student achievement, while others see the impact as insignificant. Overall, the impact seems to be highest for particular subgroups (such as female or white students) who have entered specific programmes at specific schools. Given the wider aims of some lottery schemes, there is a need to measure outcomes associated with their intended purposes.</p>	
<p><b>Studies have shown to an extent how and why parents choose to participate</b></p>	<p><b>Policy makers should understand how and why parents choose</b></p>
<p><b>Summary</b></p> <p>Though few studies have highlighted parents' responses to lottery schemes, some studies in the US have linked the outcomes of lotteries to the choices of parents/pupils. Given that these choices are heterogeneous, lottery schemes seem to have a differential impact. Specific outcomes are linked to specific preferences. This means that the link between preferences and effects is an important factor to consider when designing a lottery scheme.</p>	
<p><b>There are lessons for the United Kingdom from the evaluations of lottery schemes in other countries</b></p>	<p><b>Research into the impact of lottery schemes is complex, but needed</b></p>
<p><b>Summary</b></p> <p>We identified a number of methodological issues in the evaluations of lottery schemes in our international examples that indicate the difficulties in performing evaluations. Overall, research into the effects of lottery schemes is complex and faces a number of pitfalls. This complexity limits to an extent the ability of researchers to measure outcomes. However, the growing importance of lottery schemes also means that evaluations are required to understand the full impact of lottery schemes. The challenge to evaluators is to control for the methodological pitfalls (see Section 2.3) in research design. One promising area of research involves the study of how and why parents/pupils choose.</p>	